

Serial No.: 10/511829_D

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Classification Data

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:37:59 ON 30 JAN 2009

=> file aquire, biosis, caplus

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
1.10	1.10

FULL ESTIMATED COST

FILE 'AQUIRE' ENTERED AT 18:40:57 ON 30 JAN 2009
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FILE 'BIOSIS' ENTERED AT 18:40:57 ON 30 JAN 2009
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=> s astaxanthin
L1 5433 ASTAXANTHIN

=> s l1 (s) ester#
L2 581 L1 (S) ESTER#

=> s l2 (s) caprylic
L3 1 L2 (S) CAPRYLIC

=> d l3 ibib abs

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1938:64637 CAPLUS
DOCUMENT NUMBER: 32:64637
ORIGINAL REFERENCE NO.: 32:9053f-i,9054a-h
TITLE: Astaxanthin and ovoverdin
AUTHOR(S): Kuhn, Richard; Sorensen, Nils A.
SOURCE: Berichte der Deutschen Chemischen Gesellschaft
[Abteilung] B: Abhandlungen (1938), 71B, 1879-88
CODEN: BDCBAD; ISSN: 0365-9488
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
GI For diagram(s), see printed CA Issue.
AB The green chromoprotein (I) in the eggs of *Astacus gammarus* is easily decomposed by alc., acetone, dilute acids or heat into a red pigment (II) which with alc. KOH gives astacin (III) (C. A. 27, 3530; 28, 217.1; Karrer and Hubner, C. A. 30, 6387.5). An interesting question was how combination of a red carotenoid with a colorless protein component can give a deep blue-green chromoprotein. II, originally designated ovo ester, is not an ester but a hydroxylated carotenoid C₄₀H₅₂O₄, i. e., a xanthophyll, and it is accordingly called astaxanthin. It differs from III in containing 4 more H atoms. In alkaline solution it uses up exactly 2 mols. O, smoothly giving III: II + 2O = III + 2H₂O₂. If O is strictly excluded, no trace of III is formed. The process hitherto thought to be a saponification is therefore really an autoxidation. On the basis of the triketo- β -carotene structure for III which the work of Karrer and his colleagues has made very probable, it may be concluded that II contains 2 secondary alc. groups in the place of 2 of the ketone groups in III. The HO groups can readily be detected by esterification. No tetraesters could be prepared; the keto groups in II do not enolize under the same conditions as those in III. With MeMgI II gives only 2 mols. CH₄ and its diacetate shows no active H at 20°. The absence of CH₂ groups next to the CO groups would explain why, unlike III, the distribution of II between

benzine and aqueous MeOH is not influenced by dilute NaOH. It is very probable that the 2 CO groups are in conjugation with the polyene chain. II would then be a 5,5'-dihydroxy-4,4'-diketo- β -carotene. Whereas III has only 1 homogeneous absorption band, II and its esters show 3 distinct maximum in the visible region. When O is strictly excluded, II gives deep blue alkali salts. If air is admitted the color immediately changes to red and III is formed. The phenomenon is similar to the formation of the orange K stilbenediolate (IV) from benzoin and K alcoholate. The blue salts are probably formed by double enolization and have the structure (R = polyene chain). They have not been isolated in analyzable form but on decomposition with dilute H₂SO₄ in a high vacuum they give II exclusively. Ovoverdin (I) is also assumed to be an analog of IV and is assigned a structure similar to that above, with basic groups of the protein component replacing the K atoms. This would explain its blue-green color. Unlike the blue salts, however, it is not autoxidizable; this is believed to be due to the fact that the protein is present not only in salt-like combination but that, as in the formation of flavoproteins and flavophosphoproteins, forces come into play which effect a sp., relatively firm "anchoring" of the pigment to the protein. From sedimentation studies of hardly purified solns. of I from the eggs. of *Homarus americanus*, Wyckoff (C. A. 31, 8568.6) obtained values corresponding to a mol. weight of about 300,000. The question was whether with increasing purification the ratio of II to protein in I would approach the value 1:500 corresponding to such a mol. weight. With fresh eggs. of North Sea lobsters as starting material, the content of II, after cleavage of the protein fraction with pyridine, was determined calorimetrically in a step photometer. The protein content was determined by precipitation with tannin

(C. A. 32, 202.2) and Kjeldahl N detns. on the ppts. The I was purified by fractional adsorption on Al(OH)₃ and fractional elution with Na₂HPO₄ or 40%-saturated (NH₄)₂SO₄ under N in a refrigerator. There were thus obtained products with a constant ratio II: protein of 1:242. The absorption spectrum did not change during the course of the purification. The mol. weight determined in this way is therefore around 144,000. The epiphasic pigments

in the red epidermis of the lobster, hitherto considered to be esters of III, are really esters of II, for when the saponification is effected in the complete absence of air there are obtained the characteristic deeply colored salts of II which are instantly dehydrogenated to the tetraketone only when air is admitted. The chromoproteins also yield the double α -ketol with heat or dilute acids. The pigment of the boiled lobster is therefore II, not III. This is probably true of all Crustacea insofar as putrefaction or other factors have not set up an alkaline reaction which makes possible autoxidation to the tetraketone on boiling. II, m. 215-16° (decomposition), α 672.5 \pm 0.03° (7.22 mg. in 10 cc. pyridine, 1 2 dm.). Diacetate, deep blue-black, m. 203- 5° (evacuated tubes, Berl block), goes into the lower layer in distribution tests between 90% MeOH and benzine. Dicaprylate, dark red, m. 121-4° (in vacua, Berl block); only very little can be shaken out of benzine with 95% MeOH and less than half with 90% MeOH, but with 97% MeOH most of the pigment goes into the lower layer. Dipalmitate, violet-red, m. 71.5-2.5°.

=> d his

(FILE 'HOME' ENTERED AT 18:37:59 ON 30 JAN 2009)

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:40:57 ON 30 JAN 2009

L1 5433 S ASTAXANTHIN
L2 581 S L1 (S) ESTER#
L3 1 S L2 (S) CAPRYLIC

=> s l1 (s) caprylic
L4 1 L1 (S) CAPRYLIC

=> s l4 not l3
L5 0 L4 NOT L3

=> s l1 (l) caprylic
L6 2 L1 (L) CAPRYLIC

=> s l6 not l5
L7 2 L6 NOT L5

=> d l7 1-2 ibib abs

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1961:65684 CAPLUS
DOCUMENT NUMBER: 55:65684
ORIGINAL REFERENCE NO.: 55:12543b-d
TITLE: Lipides of Ankistrodesmus braunii
AUTHOR(S): Williams, Virginia R.; McMillan, Rosamond
CORPORATE SOURCE: Louisiana State Univ., Baton Rouge
SOURCE: Science (Washington, DC, United States) (1961), 133,
459-60
CODEN: SCIEAS; ISSN: 0036-8075
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. CA 52, 5542h. The cellular lipides of *A. braunii*, grown to stationary phase on a chemical defined medium, were analyzed. The lipide content varied from 18 to 73% (dry weight), depending on age and methods of analysis. The pigments of the nonsaponifiable fraction were separated by adsorption chromatography and counter current extraction and tentatively identified as β -carotene, astaxanthin, lutein, and possibly a derivative of neoxanthin. The correct spectra and solubility were obtained for the 1st 3. The fatty acid fraction was converted to the corresponding Me esters and analyzed by gas chromatography. The principal fatty acids present were: palmitic, oleic, and linolenic acids. Traces were detected of caprylic, capric, lauric, and palmitoleic acids.

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1938:64637 CAPLUS
DOCUMENT NUMBER: 32:64637
ORIGINAL REFERENCE NO.: 32:9053f-i,9054a-h
TITLE: Astaxanthin and ovoverdin
AUTHOR(S): Kuhn, Richard; Sorensen, Nils A.
SOURCE: Berichte der Deutschen Chemischen Gesellschaft
[Abteilung] B: Abhandlungen (1938), 71B, 1879-88
CODEN: BDCBAD; ISSN: 0365-9488
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

GI For diagram(s), see printed CA Issue.

AB The green chromoprotein (I) in the eggs of *Astacus gammarus* is easily decomposed by alc., acetone, dilute acids or heat into a red pigment (II)

which with alc. KOH gives astacin (III) (C. A. 27, 3530; 28, 217.1; Karrer and Hubner, C. A. 30, 6387.5). An interesting question was how combination of a red carotenoid with a colorless protein component can give a deep blue-green chromoprotein. II, originally designated ovo ester, is not an ester but a hydroxylated carotenoid C₄₀H₅₂O₄, i. e., a xanthophyll, and it is accordingly called astaxanthin. It differs from III in containing 4 more H atoms. In alkaline solution it uses up exactly 2 mols. O, smoothly giving III: $II + 2O = III + 2H_2O_2$. If O is strictly excluded, no trace of III is formed. The process hitherto thought to be a saponification is therefore really an autoxidation. On the basis of the triketo- β -carotene structure for III which the work of Karrer and his colleagues has made very probable, it may be concluded that II contains 2 secondary alc. groups in the place of 2 of the ketone groups in III. The HO groups can readily be detected by esterification. No tetraesters could be prepared; the keto groups in II do not enolize under the same conditions as those in III. With MeMgI II gives only 2 mols. CH₄ and its diacetate shows no active H at 20°. The absence of CH₂ groups next to the CO groups would explain why, unlike III, the distribution of II between benzene and aqueous MeOH is not influenced by dilute NaOH. It is very probable that the 2 CO groups are in conjugation with the polyene chain. II would then be a 5,5'-dihydroxy-4,4'-diketo- β -carotene. Whereas III has only 1 homogeneous absorption band, II and its esters show 3 distinct maximum in the visible region. When O is strictly excluded, II gives deep blue alkali salts. If air is admitted the color immediately changes to red and III is formed. The phenomenon is similar to the formation of the orange K stilbenediolate (IV) from benzoin and K alcoholate. The blue salts are probably formed by double enolization and have the structure (R = polyene chain). They have not been isolated in analyzable form but on decomposition with dilute H₂SO₄ in a high vacuum they give II exclusively. Ovoverdin (I) is also assumed to be an analog of IV and is assigned a structure similar to that above, with basic groups of the protein component replacing the K atoms. This would explain its blue-green color. Unlike the blue salts, however, it is not autoxidizable; this is believed to be due to the fact that the protein is present not only in salt-like combination but that, as in the formation of flavoproteins and flavophosphoproteins, forces come into play which effect a sp., relatively firm "anchoring" of the pigment to the protein. From sedimentation studies of hardly purified solns. of I from the eggs. of *Homarus americanus*, Wyckoff (C. A. 31, 8568.6) obtained values corresponding to a mol. weight of about 300,000. The question was whether with increasing purification the ratio of II to protein in I would approach the value 1:500 corresponding to such a mol. weight. With fresh eggs. of North Sea lobsters as starting material, the content of II, after cleavage of the protein fraction with pyridine, was determined calorimetrically in a step photometer. The protein content was determined by precipitation with tannin (C. A. 32, 202.2) and Kjeldahl N detns. on the ppts. The I was purified by fractional adsorption on Al(OH)₃ and fractional elution with Na₂HPO₄ or 40%-saturated (NH₄)₂SO₄ under N in a refrigerator. There were thus obtained products with a constant ratio II: protein of 1:242. The absorption spectrum did not change during the course of the purification. The mol. weight determined in this way is therefore around 144,000. The epiphasic pigments in the red epidermis of the lobster, hitherto considered to be esters of III, are really esters of II, for when the saponification is effected in the complete absence of air there are obtained the characteristic deeply

colored salts of II which are instantly dehydrogenated to the tetraketone only when air is admitted. The chromoproteins also yield the double α -ketol with heat or dilute acids. The pigment of the boiled lobster is therefore II, not III. This is probably true of all Crustacea insofar as putrefaction or other factors have not set up an alkaline reaction which makes possible autoxidation to the tetraketone on boiling. II, m. 215-16° (decomposition), α 672.5 \pm 0.03° (7.22 mg. in 10 cc. pyridine, 1 2 dm.). Diacetate, deep blue-black, m. 203- 5° (evacuated tubes, Berl block), goes into the lower layer in distribution tests between 90% MeOH and benzine. Dicaprylate, dark red, m. 121-4° (in vacua, Berl block); only very little can be shaken out of benzine with 95% MeOH and less than half with 90% MeOH, but with 97% MeOH most of the pigment goes into the lower layer. Dipalmitate, violet-red, m. 71.5-2.5°.

=> FIL STNGUIDE
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
24.42	25.52

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-2.46	-2.46

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=> d his

(FILE 'HOME' ENTERED AT 18:37:59 ON 30 JAN 2009)

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:40:57 ON 30 JAN 2009

L1	5433 S ASTAXANTHIN
L2	581 S L1 (S) ESTER#
L3	1 S L2 (S) CAPRYLIC
L4	1 S L1 (S) CAPRYLIC
L5	0 S L4 NOT L3
L6	2 S L1 (L) CAPRYLIC
L7	2 S L6 NOT L5

FILE 'STNGUIDE' ENTERED AT 18:45:05 ON 30 JAN 2009

=> file aquire, biosis, caplus
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.14	25.66

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-2.46

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=> s l1 and caprylic
L8 7 L1 AND CAPRYLIC

=> s l8 not l7
L9 5 L8 NOT L7

=> d l9 1-5 ibib abs

L9 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1155669 CAPLUS
DOCUMENT NUMBER: 149:408949
TITLE: Cationic latex as a carrier for active ingredients and
methods for making and using the same
INVENTOR(S): Krishnan, Venkataram
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 36pp., Cont.-in-part of U.S.
Ser. No. 895541.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
US 20080233062	A1	20080925	US 2008-116006	20080506
US 20080057049	A1	20080306	US 2007-895541	20070824
PRIORITY APPLN. INFO.:			US 2006-839973P	P 20060824
			US 2007-895541	A2 20070824

AB This invention relates to the field of polymeric materials that can be used in combination with a wide variety of substrates, such as textiles, metal, cellulosic materials, plastics, and the like, and to the field of active agents including, for example, antimicrobial, antibacterial, and antifungal materials. This invention further relates to latex polymer coatings that comprise at least one active component as well as methods for making and using such latex compns. Thus, deodorant composition was prepared comprising DC245 fluid 49.30%, Bentone gel VS-5/PC 13.50%, Puresyn 4 10.0%, Asensa CL 110 1.0%, Cabosil M5 0.2%, Reach AZP 908 SUF 24.0%, and dipropylene glycol 2.0%.

L9 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:770132 CAPLUS
DOCUMENT NUMBER: 149:106640
TITLE: Polyglycerin fatty ester-containing screen inks and pressure-sensitive transfer sheets printed therewith
INVENTOR(S): Iida, Yasuharu; Higo, Sachiko; Furukawa, Kunihiro

PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008143992	A	20080626	JP 2006-331364	20061208
PRIORITY APPLN. INFO.:			JP 2006-331364	20061208

AB Title screen inks, capable of printing on food, are prepared by mixing 60-90 parts dispersions of colored edible dyes and white edible dyes in heat-meltable compns. comprising polyglycerin fatty esters, hydrogenated vegetable oils, and edible waxes with 10-40 parts H₂O at 50-70°, and emulsifying. Title pressure-sensitive transfer sheets are prepared by printing 50-90 µm-thick substrates with the screen inks at thickness 5-20 µm (as dried coating). Thus, bleached paper for food was screen-printed with an ink containing caprylic capric triglycerides, hexaglycerin ricinoleate, hydrogenated soybean oil, beeswax, Japan Red 40 Al lake, and CaCO₃ to give a pressure-sensitive transfer sheet showing good blocking resistance and no curling nor delamination.

L9 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1207105 CAPLUS
 DOCUMENT NUMBER: 147:454810
 TITLE: External compositions containing redox catalysts, oxidoreductase, and/or reducing agents
 INVENTOR(S): Yanagi, Kotaro
 PATENT ASSIGNEE(S): Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007277212	A	20071025	JP 2006-127932	20060404
PRIORITY APPLN. INFO.:			JP 2006-127932	20060404

AB The invention relates to an external composition, especially an anti-wrinkle, skin-whitening, anti-acne, anti-aging, and skin barrier function-improving cosmetic composition, wherein the composition is characterized by containing at least two components selected from a metal redox catalyst, an oxidoreductase, and a reducing agent. The components activates biol. tissue or bioactive agent through the reducing effect. The components may be immobilized on the surface of carrier particles. For example, crystallized subtilisin was crosslinked with protein through glutaraldehyde to stabilize. The crystal was mixed with platinum colloid in 0.5 % xanthan gel at 10 and 0.1 %, resp., and further mixed with L-ascorbic acid-2-phosphate ester-6-palmitate (3 %), fullerene C₆₀ (1 %), and preservative (2 %). The gel composition showed higher keratolytic effect as compared with glycolic acid cream on human skin. Also, an emulsion composition containing the gel composition

0.0001-10 % with other ingredients was formulated.

L9 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:404819 CAPLUS

DOCUMENT NUMBER: 141:189706

TITLE: Sugar ester synthesis by a mycelium-bound *Mucor circinelloides* lipase in a micro-reactor equipped with water activity sensor

AUTHOR(S): Antczak, Tadeusz; Patura, Justyna; Szczesna-Antczak, Mirosława; Hiler, Dariusz; Bielecki, Stanisław

CORPORATE SOURCE: Institute of Technical Biochemistry, Technical University of Łódź, Łódź, 90-924, Pol.

SOURCE: Journal of Molecular Catalysis B: Enzymatic (2004), 29(1-6), 155-161

CODEN: JMCEF8; ISSN: 1381-1177

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:189706

AB The mycelium-bound *Mucor circinelloides* lipase was used for the synthesis of esters of saccharides and fatty acids in 37 mL reactor equipped with magnetic stirrer and water activity sensor. Either di-n-pentyl ether or the mixture of di-n-pentyl and petroleum ethers were applied as reaction media. Water activity sensor provided online monitoring of this parameter and control of continuous processes of ester synthesis. It was found that two natural antioxidants, i.e. carotene and astaxanthin activated this lipase in organic solvents that could be beneficial for the synthesis of esters of compds. sensitive to oxidation, e.g. polyunsatd. fatty acids.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:821281 CAPLUS

DOCUMENT NUMBER: 134:146440

TITLE: Activity of immobilised in situ intracellular lipases from *Mucor circinelloides* and *Mucor racemosus* in the synthesis of sucrose esters

AUTHOR(S): Antczak, T.; Hiler, D.; Krystynowicz, A.; Szczesna, M.; Bielecki, S.; Galas, E.

CORPORATE SOURCE: Institute of Technical Biochemistry, Technical University of Łódź, Łódź, 90-924, Pol.

SOURCE: Progress in Biotechnology (2000), 17(Food Biotechnology), 221-227

CODEN: PBITE3; ISSN: 0921-0423

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:146440

AB The activity of intracellular, immobilized in situ lipases from *Mucor circinelloides* and *Mucor racemosus* can be changed by means of chemical modifications of the reaction milieu, using some substances isolated from *Mucor* cells. The substances act ambivalently (as activators or inhibitors) on the lipases. The yield of sucrose monocaprylate synthesis and the time to reach the reaction equilibrium state were determined in mono-

and

biphasic systems. The investigations proved that in a milieu of

di-n-pentyl ether saturated with water, 92% of sucrose was esterified, and the location of the lipase on the interface between the phases, markedly diminished the time equilibrium to reach.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

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FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:40:57 ON 30 JAN 2009

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L6 2 S L1 (L) CAPRYLIC
L7 2 S L6 NOT L5

FILE 'STNGUIDE' ENTERED AT 18:45:05 ON 30 JAN 2009

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:46:34 ON 30 JAN 2009

L8 7 S L1 AND CAPRYLIC
L9 5 S L8 NOT L7

=> s l1 and capric

L10 7 L1 AND CAPRIC

=> d l10 1-7 ibib abs

L10 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2009 The Thomson Corporation on STN
ACCESSION NUMBER: 1967:87749 BIOSIS
DOCUMENT NUMBER: PREV19674800087751; BA48:87751
TITLE: The ketocarotenoids in Adonis annua L.-II, On the structure
of esters [Engl. summ.].
Original Title: Die Ketocarotinoide in Adonis annua L: II.
Zur Struktur der Ester [Engl. summ.].
AUTHOR(S): EGGER, KURT; KLEINIG, HANS
CORPORATE SOURCE: Bot. Inst. Univ. Heidelberg, Heidelberg, West Ger.
SOURCE: PHYTOCHEMISTRY, (1967) Vol. 6, No. 3, pp. 437-410.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
ENTRY DATE: Entered STN: May 2007
Last Updated on STN: May 2007

AB The fatty acid compounds of the ketocaroten-oid esters of Adonis annua L.
(esters from astaxanthin, 3-hydraxyechinen-one, 3,3[image]
-dihydroxyechinenone and 3-hydroxycanthaxanthin) have been investigated.
Myristic acid is the main compound, but the esters contain also palmitic,
lauric, capric acid and an unsaturated fatty acid in minor
concentration,. ABSTRACT AUTHORS: Authors

L10 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2008:1155669 CAPLUS
DOCUMENT NUMBER: 149:408949
TITLE: Cationic latex as a carrier for active ingredients and

INVENTOR(S): methods for making and using the same
 Krishnan, Venkataram
 PATENT ASSIGNEE(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 36pp., Cont.-in-part of U.S.
 Ser. No. 895541.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080233062	A1	20080925	US 2008-116006	20080506
US 20080057049	A1	20080306	US 2007-895541	20070824
PRIORITY APPLN. INFO.:			US 2006-839973P	P 20060824
			US 2007-895541	A2 20070824

AB This invention relates to the field of polymeric materials that can be used in combination with a wide variety of substrates, such as textiles, metal, cellulosic materials, plastics, and the like, and to the field of active agents including, for example, antimicrobial, antibacterial, and antifungal materials. This invention further relates to latex polymer coatings that comprise at least one active component as well as methods for making and using such latex compns. Thus, deodorant composition was prepared comprising DC245 fluid 49.30%, Bentone gel VS-5/PC 13.50%, Puresyn 4 10.0%, Asensa CL 110 1.0%, Cabosil M5 0.2%, Reach AZP 908 SUF 24.0%, and dipropylene glycol 2.0%.

L10 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:770132 CAPLUS
 DOCUMENT NUMBER: 149:106640
 TITLE: Polyglycerin fatty ester-containing screen inks and pressure-sensitive transfer sheets printed therewith
 INVENTOR(S): Iida, Yasuharu; Higo, Sachiko; Furukawa, Kunihiro
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008143992	A	20080626	JP 2006-331364	20061208
PRIORITY APPLN. INFO.:			JP 2006-331364	20061208

AB Title screen inks, capable of printing on food, are prepared by mixing 60-90 parts dispersions of colored edible dyes and white edible dyes in heat-meltable compns. comprising polyglycerin fatty esters, hydrogenated vegetable oils, and edible waxes with 10-40 parts H2O at 50-70°, and emulsifying. Title pressure-sensitive transfer sheets are prepared by printing 50-90 µm-thick substrates with the screen inks at thickness 5-20 µm (as dried coating). Thus, bleached paper for food was screen-printed with an ink containing caprylic capric triglycerides, hexaglycerin ricinoleate, hydrogenated soybean oil, beeswax, Japan Red 40 Al lake, and CaCO3 to give a pressure-sensitive transfer sheet showing

good blocking resistance and no curling nor delamination.

L10 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1207105 CAPLUS
DOCUMENT NUMBER: 147:454810
TITLE: External compositions containing redox catalysts, oxidoreductase, and/or reducing agents
INVENTOR(S): Yanagi, Kotaro
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2007277212	A	20071025	JP 2006-127932	20060404
PRIORITY APPLN. INFO.:			JP 2006-127932	20060404

AB The invention relates to an external composition, especially an anti-wrinkle, skin-whitening, anti-acne, anti-aging, and skin barrier function-improving cosmetic composition, wherein the composition is characterized by containing at least

two components selected from a metal redox catalyst, an oxidoreductase, and a reducing agent. The components activates biol. tissue or bioactive agent through the reducing effect. The components may be immobilized on the surface of carrier particles. For example, crystallized subtilisin was crosslinked with protein through glutaraldehyde to stabilize. The crystal was mixed with platinum colloid in 0.5 % xanthan gel at 10 and 0.1 %, resp., and further mixed with L-ascorbic acid-2-phosphate ester-6-palmitate (3 %), fullerene C60 (1 %), and preservative (2 %). The gel composition showed higher keratolytic effect as compared with glycolic acid cream on human skin. Also, an emulsion composition containing the gel composition 0.0001-10 % with other ingredients was formulated.

L10 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1968:19920 CAPLUS
DOCUMENT NUMBER: 68:19920
ORIGINAL REFERENCE NO.: 68:3795a,3798a
TITLE: Secondary carotenoids of the green alga, Sphaeroplea
AUTHOR(S): Kleinig, Hans
CORPORATE SOURCE: Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Naturforschung, Teil B: Anorganische Chemie, Organische Chemie, Biochemie, Biophysik, Biologie (1967), 22(9), 977-9
CODEN: ZENBAX; ISSN: 0044-3174
DOCUMENT TYPE: Journal
LANGUAGE: German

AB The carotenoids of the zygosporos of *S. cambrica* were extracted and separated by

column chromatog. on kieselguhr. The carotenoids in the fractions obtained from the column were characterized by thin-layer chromatog., chemical tests, and spectroscopy. The carotenoids and the percent of each in the total were hydroxyechinenone (3-hydroxy-4-oxo- β -carotene) 2%, adonixanthin (3,3'-dihydroxy-4-oxo- β -carotene) 21%, adonirubin

(3-hydroxy-4,4'-dioxo- β -carotene) 4%, and astaxanthin (3,3'-dihydroxy-4,4'-dioxo- β -carotene) 68%, which were esterified with myristic, lauric, and capric acids through the hydroxyl groups, echinenon (4-oxo- β -carotene) 2%, and canthaxanthin (4,4'-dioxo- β -carotene) 3%. Chlorophyll and primary carotenoids such as α -carotene and β -carotene were not detected.

L10 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1967:112942 CAPLUS
DOCUMENT NUMBER: 66:112942
ORIGINAL REFERENCE NO.: 66:20971a,20974a
TITLE: Ketocarotenoids from *Adonis annua*. II. Ester structures
AUTHOR(S): Egger, Kurt; Kleinig, Hans
CORPORATE SOURCE: Univ. Heidelberg, Heidelberg, Fed. Rep. Ger.
SOURCE: Phytochemistry (Elsevier) (1967), 6(3), 437-40
CODEN: PYTCAS; ISSN: 0031-9422
DOCUMENT TYPE: Journal
LANGUAGE: German

AB cf. CA 63, 15223g. The fatty acid compds. of the ketocarotenoid esters in the petals of *A. annua* (esters of astaxanthin, 3-hydroxyechinenone, 3,3'-dihydroxyechinenone, and 3-hydroxycanthaxanthin) were identified as myristic (main compound), palmitic, lauric, and capric acids. An unsatd. fatty acid is present in a minor concentration 12 references.

L10 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1961:65684 CAPLUS
DOCUMENT NUMBER: 55:65684
ORIGINAL REFERENCE NO.: 55:12543b-d
TITLE: Lipides of *Ankistrodesmus braunii*
AUTHOR(S): Williams, Virginia R.; McMillan, Rosamond
CORPORATE SOURCE: Louisiana State Univ., Baton Rouge
SOURCE: Science (Washington, DC, United States) (1961), 133, 459-60
CODEN: SCIEAS; ISSN: 0036-8075
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. CA 52, 5542h. The cellular lipides of *A. braunii*, grown to stationary phase on a chemical defined medium, were analyzed. The lipide content varied from 18 to 73% (dry weight), depending on age and methods of analysis. The pigments of the nonsaponifiable fraction were separated by adsorption chromatography and counter current extraction and tentatively identified as β -carotene, astaxanthin, lutein, and possibly a derivative of neoxanthin. The correct spectra and solubility were obtained for the 1st 3. The fatty acid fraction was converted to the corresponding Me esters and analyzed by gas chromatography. The principal fatty acids present were: palmitic, oleic, and linolenic acids. Traces were detected of caprylic, capric, lauric, and palmitoleic acids.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	42.34	68.00

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
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Serial No.: 10/511829_D

	ENTRY	SESSION
CA SUBSCRIBER PRICE	-9.02	-11.48

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LAST RELOADED: Jan 23, 2009 (20090123/UP).

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(FILE 'HOME' ENTERED AT 18:37:59 ON 30 JAN 2009)

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:40:57 ON 30 JAN 2009

L1	5433 S ASTAXANTHIN
L2	581 S L1 (S) ESTER#
L3	1 S L2 (S) CAPRYLIC
L4	1 S L1 (S) CAPRYLIC
L5	0 S L4 NOT L3
L6	2 S L1 (L) CAPRYLIC
L7	2 S L6 NOT L5

FILE 'STNGUIDE' ENTERED AT 18:45:05 ON 30 JAN 2009

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:46:34 ON 30 JAN 2009

L8	7 S L1 AND CAPRYLIC
L9	5 S L8 NOT L7
L10	7 S L1 AND CAPRIC

FILE 'STNGUIDE' ENTERED AT 18:48:49 ON 30 JAN 2009

=> s l1 and (octanoic or decanoic)
L11 0 L1 AND (OCTANOIC OR DECANOIC)

=> s l1 and nananoic
L12 0 L1 AND NANANOIC

=> file aquire, biosis, caplus
COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.84	68.84

	SINCE FILE	TOTAL
	ENTRY	SESSION
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		
CA SUBSCRIBER PRICE	0.00	-11.48

FILE 'AQUIRE' ENTERED AT 18:55:51 ON 30 JAN 2009
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FILE 'BIOSIS' ENTERED AT 18:55:51 ON 30 JAN 2009
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=> s 11 and (octanoic or nonanoic or decanoic)
L13 10 L1 AND (OCTANOIC OR NONANOIC OR DECANOIC)

=> d 113 1-10 ibib abs

L13 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:803607 CAPLUS

DOCUMENT NUMBER: 149:330479

TITLE: Enzymatic synthesis of astaxanthin n-octanoic acid esters

AUTHOR(S): Nakao, Masahiro; Sumida, Motoo; Katano, Kenji; Fukami, Harukazu

CORPORATE SOURCE: Institute for Advanced Technology, Technological Development Center, Suntory Ltd., 5-2-5, Yamazaki, Shimamoto-cho, Mishima-gun, Osaka, 618-0001, Japan

SOURCE: Journal of Oleo Science (2008), 57(7), 371-374

CODEN: JOSOAP; ISSN: 1345-8957

PUBLISHER: Japan Oil Chemists' Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The enzymic synthesis of astaxanthin n-octanoic acid esters was examined. Carriers for the immobilized enzyme and reaction conditions such as water content, reaction temperature, and time were examined using *Candida cylindracea* lipase (Lipase OF). Lipase OF immobilized by a hydrophobic anion exchange resin (10% weight/weight content of lipase) gave the best yield in the esterification reaction of astaxanthin. Two milligrams of astaxanthin per 750 μ L tri-n-octanoin (ca. 0.3%) was optimum because of the low solubility of tri-n-octanoin. The esters were obtained in a yield of 36.4% under the optimal reaction conditions.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:754507 CAPLUS

DOCUMENT NUMBER: 147:142356

TITLE: β -Amyrin fatty acid derivatives inhibiting production of inflammatory cytokines, their uses as inflammation inhibitors, and food and cosmetics containing them

INVENTOR(S): Nimura, Yoshihiro

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 42pp.

CODEN: JKXXAF

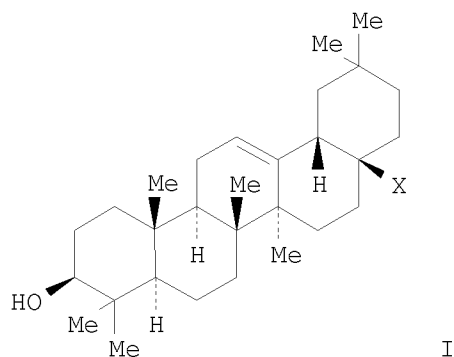
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2007176816	A	20070712	JP 2005-374630	20051227
PRIORITY APPLN. INFO.: GI			JP 2005-374630	20051227



AB Title esters I (X = stearic acid, palmitic acid, eicosapentaenoic acid, docosaheptaenoic acid, docosapentaenoic acid, octanoic acid, decanoic acid, γ -linoleic acid) inhibit production of inflammatory cytokines and are useful as inflammation inhibitors with slight adverse reactions. Also claimed are food and cosmetics containing I, astaxanthin, and Diospyros kaki leaf extract-containing soybean oil at predetd. concns. Thus, Chrysanthemum morifolium flower was ground, treated with eicosapentaenoic acid in the presence of Lipase AY Amano at 26° for 13 h, mixed with sep. prepared Diospyros kaki leaf extract-containing soybean oil, and the oil phase was separated The oil phase containing

I (X = eicosapentaenoic acid) suppressed Japanese cedar pollen-induced interleukin-1 α production by monocytes derived from pollinosis patients.

L13 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1287293 CAPLUS

DOCUMENT NUMBER: 147:166496

TITLE: Chemical synthesis of astaxanthin n-octanoic acid monoester and diester and evaluation of their oral absorbability

AUTHOR(S): Fukami, Harukazu; Namikawa, Koshi; Sugiura-Tomimori, Namino; Sumida, Motoo; Katano, Kenji; Nakao, Masahiro
CORPORATE SOURCE: Department of Bioscience and Biotechnology, Faculty of Bioenvironmental Science, Kyotogakuen University, 1-1 Nanjyo, Sogabe-cho, Kameoka-city, Kyoto, 621-8555, Japan

SOURCE: Journal of Oleo Science (2006), 55(12), 653-656
CODEN: JOSOAP; ISSN: 1345-8957

PUBLISHER: Japan Oil Chemists' Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:166496

AB We chemical synthesized astaxanthin n-octanoic acid monoester and diester from free astaxanthin and n-octanoic acid by a dehydration reagent in 32 and 22% yield, resp. The oral absorbability of the n-octanoic acid monoester and diester was evaluated by examining the plasma and liver concns. of astaxanthin after oral administration of the compds. The monoester significantly increased the plasma and liver concentration of astaxanthin compared with the long-chain fatty acid ester mixture

derived from Haematococcus algae. The diester is inclined to increase it although it is not significant. It is possible that medium-chain fatty acid esters give better oral-absorbability of astaxanthin than long-chain fatty acid esters.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1219315 CAPLUS

DOCUMENT NUMBER: 146:44433

TITLE: Carotenoids in Solenocera indica and Aristeus alcocki, deep-sea shrimp from Indian waters

AUTHOR(S): Manjabhat, Sachindra Nakkarike; Narayan, Bhaskar; Subbanna, Mahendrakar Namdev

CORPORATE SOURCE: Department of Meat, Fish, and Poultry Technology, Central Food Technological Research Institute, Mysore, 570 013, India

SOURCE: Journal of Aquatic Food Product Technology (2006), 15(2), 5-16

CODEN: JAFPE5; ISSN: 1049-8850

PUBLISHER: Food Products Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Carotenoids are the major pigments responsible for the color of crustaceans like shrimp. Quant. and qual. distribution of carotenoids in different body components of deep-sea shrimp Solenocera indica and Aristeus alcocki, from Indian waters were assessed. The yield of waste (head and carapace) from processing of these shrimp ranged from 62.6-65.6%. Carotenoid content was higher in A. alcocki and the highest total carotenoid content of 185.3 µg/g was observed in head of A. alcocki. Astaxanthin and its mono- and diesters (63.5-92.2%) were the major carotenoids in both the species of shrimp and the levels of esterified astaxanthin were higher than the free form of astaxanthin. The levels of astaxanthin esters were higher (61.7-70.8%) in A. alcocki compared to S. indica (43.8-58.4%). Highest unsatd. fatty acid content (60.5%) was observed in the carotenoid extract from head of A. alcocki, and the highest saturated fatty acid content (83.1%) was observed in the carotenoid extract from the carapace.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:161417 CAPLUS

DOCUMENT NUMBER: 142:279029

TITLE: Carotenoids in crabs from marine and fresh waters of India

AUTHOR(S): Sachindra, N. M.; Bhaskar, N.; Mahendrakar, N. S.

CORPORATE SOURCE: Department of Meat, Fish and Poultry Technology, Central Food Technological Research Institute, Mysore, 570 013, India

SOURCE: LWT--Food Science and Technology (2005), 38(3), 221-225

CODEN: LSTWB3

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Quant. and qual. distribution of carotenoids in meat and shell of major

marine crab (*Charybdis cruciata*) and fresh water crab (*Potamon potamon*) from Indian waters was assessed. The total carotenoid content was low in both species of crabs analyzed, highest being 11.0 µg/g in shell of marine crab. Thin-layer chromatog. (TLC) and high-performance liquid chromatog. (HPLC) of carotenoid exts. indicated that the marine crab contained astaxanthin and its esters as major carotenoids and zeaxanthin was major carotenoid in fresh water crab extract. Astaxanthin and its esters contributed 67.6 and 65.5 g/100 g of total carotenoids in meat and shell of marine crab. The zeaxanthin content (g/100 g) in the carotenoid extract of meat and shell of fresh water crab was 42.0 and 74.8 of total carotenoids. The carotenoid exts. from both the crabs had higher level of unsatd. fatty acids. Oleic acid (C18:1) and palmitoleic acid (C16:1) were the predominant unsatd. fatty acid in carotenoid extract from meat of marine and fresh water crab, resp. In the carotenoid extract from shell, eicosenoic acid (C20:1) in marine crab and linolenic acid (C18:3) in fresh water crab were the major unsatd. fatty acids.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:19691 CAPLUS

DOCUMENT NUMBER: 142:133344

TITLE: Carotenoids in different body components of Indian shrimps

AUTHOR(S): Sachindra, Nakkarike M.; Bhaskar, Narayan; Mahendrakar, Namadev S.

CORPORATE SOURCE: Department of Meat, Fish and Poultry Technology, Central Food Technological Research Institute, Mysore, 570 013, India

SOURCE: Journal of the Science of Food and Agriculture (2005), 85(1), 167-172

CODEN: JSFAAE; ISSN: 0022-5142

PUBLISHER: John Wiley & Sons Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The quant. and qual. distribution of carotenoids in different body components of 4 species of shrimp (*Penaeus monodon*, *Penaeus indicus*, *Metapenaeus dobsonii*, and *Parapenaeopsis styliifera*) harvested from shallow waters off the Indian coast was assessed. The highest total carotenoid contents were observed in the head (153.1 µg g⁻¹) and carapace (104.7 µg g⁻¹) of *P. styliifera*, while the body components of *P. indicus* showed the lowest carotenoid levels. Astaxanthin and its mono- and diesters were the major carotenoids (63.5-92.2% of total carotenoids) present in the carotenoid exts. from the shrimps, while the exts. contained low levels of β-carotene and zeaxanthin. The major fatty acids in the carotenoid exts. were palmitic, heptadecanoic, palmitoleic, stearic, and oleic acids.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:892745 CAPLUS

DOCUMENT NUMBER: 139:363710

TITLE: Astaxanthin medium-chain fatty acid ester manufacture by enzymic transesterification and esterification

INVENTOR(S): Sumida, Motoo; Nakao, Masahiro; Tomimori, Namino;
 Namikawa, Koshi; Fukami, Harukazu
 PATENT ASSIGNEE(S): Suntory Limited, Japan
 SOURCE: PCT Int. Appl., 49 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003093229	A1	20031113	WO 2003-JP5443	20030428
W: AU, CA, CN, ID, IL, JP, KR, SG, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
CA 2481704	A1	20031113	CA 2003-2481704	20030428
AU 2003234765	A1	20031117	AU 2003-234765	20030428
EP 1500645	A1	20050126	EP 2003-728006	20030428
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1649839	A	20050803	CN 2003-809532	20030428
CN 100374417	C	20080312		
US 20050228188	A1	20051013	US 2004-511829	20041020
PRIORITY APPLN. INFO.:			JP 2002-128989	A 20020430
			WO 2003-JP5443	W 20030428

AB An astaxanthin medium-chain fatty acid ester (I) useful for manufacturing food, cosmetic, and drug has better bioavailability and movement in liver than that of the previously known astaxanthin long-chain fatty acid esters. I is prepared by enzymic transesterification with a lipase between the astaxanthin long-chain fatty acid esters and medium-chain fatty acid or glycerides, or enzymic esterification of astaxanthin. Manufacture of astaxanthin mono- and diester of octanoic acid with lipase of Candida was shown.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2002:888445 CAPLUS
 DOCUMENT NUMBER: 137:375344
 TITLE: Two-part disinfecting system
 INVENTOR(S): Morelli, Joseph; Warf, C. Cayce, Jr.; Aldrich, Maura; Morse, Cecilia Moser; Wiley, Jean
 PATENT ASSIGNEE(S): Alcide Corporation, USA
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002091832	A1	20021121	WO 2002-US15303	20020515
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,				

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 6524624 B1 20030225 US 2001-859902 20010516
 AU 2002308724 A1 20021125 AU 2002-308724 20020515
 EP 1401280 A1 20040331 EP 2002-769742 20020515

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2001-859902 A 20010516
 WO 2002-US15303 W 20020515

AB The two-part disinfecting system contains a first part and a second part adapted to be mixed to yield an aqueous disinfecting composition, wherein the first part comprises a chlorite and the second part comprises an acid and an oxidizable colorant, and wherein the first and/or second part comprise an α -olefin sulfonate. When the two parts are mixed, the resulting disinfectant composition shows reduced chlorine dioxide generation and extended color longevity.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:680155 CAPLUS

DOCUMENT NUMBER: 136:99141

TITLE: Studies on the chemical component of Polygonum barbatum L.

AUTHOR(S): Gao, Li-ming; Wei, Xiao-mei; Zheng, Shang-zhen; Shen, Xu-wei

CORPORATE SOURCE: College of Chemistry and Chemical Engineering, Northwest Normal University, Lanzhou, 730070, Peop. Rep. China

SOURCE: Xibei Shifan Daxue Xuebao, Ziran Kexueban (2001), 37(3), 41-43
 CODEN: XDXKEH; ISSN: 1001-988X

PUBLISHER: Xibei Shifan Daxue

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The chemical components of essential oil from Polygonum barbatum L. have been studied by means of SFE-CO₂ and GC-MS-computer. 33 Constituents have been identified from 36 separated peaks. The major components were β -sitosterol (15.747%), α -eudesmol(3.703%) and vitamin E(3.603%).

L13 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2000:756471 CAPLUS

DOCUMENT NUMBER: 133:295730

TITLE: Pigment [astaxanthin diester-based for feeding salmonids]

INVENTOR(S): Breivik, Harald; Sanna, Lola Irene; Aanesen, Berit Annie

PATENT ASSIGNEE(S): Norsk Hydro Asa, Norway

SOURCE: PCT Int. Appl., 19 pp.
 CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000062625	A1	20001026	WO 2000-NO129	20000417
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
NO 9901857	A	20001020	NO 1999-1857	19990419
NO 309386	B1	20010122		
CA 2369800	A1	20001026	CA 2000-2369800	20000417
EP 1171002	A1	20020116	EP 2000-921189	20000417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 759161	B2	20030410	AU 2000-41532	20000417
RU 2237072	C2	20040927	RU 2001-130983	20000417
US 6709688	B1	20040323	US 2002-959238	20020204
PRIORITY APPLN. INFO.:				
			NO 1999-1857	A 19990419
			WO 2000-NO129	W 20000417

AB This invention relates to a new pigment in feed for salmonids, a new feed comprising this pigment and use of this pigment. The pigment comprises a diester of astaxanthin prepared with an omega-3 fatty acid and/or a short chain carboxylic acid. By this invention a pigment for feed to salmonides that is more stable and biol. more effective than free astaxanthin and com. available astaxanthin products, is provided.

=> d his

(FILE 'HOME' ENTERED AT 18:37:59 ON 30 JAN 2009)

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:40:57 ON 30 JAN 2009

L1 5433 S ASTAXANTHIN
 L2 581 S L1 (S) ESTER#
 L3 1 S L2 (S) CAPRYLIC
 L4 1 S L1 (S) CAPRYLIC
 L5 0 S L4 NOT L3
 L6 2 S L1 (L) CAPRYLIC
 L7 2 S L6 NOT L5

FILE 'STNGUIDE' ENTERED AT 18:45:05 ON 30 JAN 2009

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:46:34 ON 30 JAN 2009

L8 7 S L1 AND CAPRYLIC
 L9 5 S L8 NOT L7
 L10 7 S L1 AND CAPRIC

FILE 'STNGUIDE' ENTERED AT 18:48:49 ON 30 JAN 2009

Serial No.: 10/511829_D

L11 0 S L1 AND (OCTANOIC OR DECANOIC)
L12 0 S L1 AND NANANOIC

FILE 'AQUIRE, BIOSIS, CAPLUS' ENTERED AT 18:55:51 ON 30 JAN 2009
L13 10 S L1 AND (OCTANOIC OR NONANOIC OR DECANOIC)

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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 19:00:32 ON 30 JAN 2009